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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/753,405

DATE: 07/30/2004

TIME: 14:19:10

Input Set : N:\Crf3\RULE60\10753405.raw

Output Set: N:\CRF4\07302004\J753405.raw

1 <110> APPLICANT: Osumi, Takashi
 2 Tsukamoto, Toshiro
 3 Tsukamoto, Noriyo
 4 Yamasaki, Masatoshi
 5 <120> TITLE OF INVENTION: GREEN FLUORESCENT PROTEINS AND BLUE FLUORESCENT
 6 PROTEINS
 7 <130> FILE REFERENCE: 046124-5005-02-US
 8 <140> CURRENT APPLICATION NUMBER: US/10/753,405
 9 <141> CURRENT FILING DATE: 2004-01-09
 10 <150> PRIOR APPLICATION NUMBER: US/09/852,000
 11 <151> PRIOR FILING DATE: 2001-05-10
 12 <150> PRIOR APPLICATION NUMBER: 09/615,655
 13 <151> PRIOR FILING DATE: 2000-07-13
 14 <150> PRIOR APPLICATION NUMBER: JP 026418/1998
 15 <151> PRIOR FILING DATE: 1998-01-23
 16 <150> PRIOR APPLICATION NUMBER: 09/121,539
 17 <151> PRIOR FILING DATE: 1998-07-24
 18 <160> NUMBER OF SEQ ID NOS: 15
 19 <170> SOFTWARE: PatentIn Ver. 2.0
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 238
 23 <212> TYPE: PRT
 24 <213> ORGANISM: Aequorea victoria
 25 <220> FEATURE:
 26 <223> OTHER INFORMATION: Green fluorescent protein
 27 <400> SEQUENCE: 1
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 29 1 5 10 15
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 31 20 25 30
 32 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
 33 35 40 45
 34 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
 35 50 55 60
 36 Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
 37 65 70 75 80
 38 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
 39 85 90 95
 40 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
 41 100 105 110
 42 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
 43 115 120 125
 44 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn

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45          130          135          140
46      Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
47      145          150          155          160
48      Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
49          165          170          175
50      Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
51          180          185          190
52      Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
53          195          200          205
54      Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
55          210          215          220
56      Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
57      225          230          235
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61 <212> TYPE: DNA
62 <213> ORGANISM: Artificial Sequence
63 <220> FEATURE:
64 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
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70 <212> TYPE: DNA
71 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
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78 <211> LENGTH: 29
79 <212> TYPE: DNA
80 <213> ORGANISM: Artificial Sequence
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
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84      gctggagtac aacttcaaca gccacaacg 29
86 <210> SEQ ID NO: 5
87 <211> LENGTH: 29
88 <212> TYPE: DNA
89 <213> ORGANISM: Artificial Sequence
90 <220> FEATURE:
91 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
92 <400> SEQUENCE: 5
93      cgttgtggct gttgaagttg tactccagc 29
95 <210> SEQ ID NO: 6
96 <211> LENGTH: 28
97 <212> TYPE: DNA
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107 <213> ORGANISM: Artificial Sequence
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116 <213> ORGANISM: Artificial Sequence
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120      cctcgtgacc accctcacct acggcgtg                28
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133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial Sequence
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141 <211> LENGTH: 29
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial Sequence
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145 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
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150 <211> LENGTH: 28
151 <212> TYPE: DNA
152 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:

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158 <210> SEQ ID NO: 13
159 <211> LENGTH: 28
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
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164 <400> SEQUENCE: 13
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167 <210> SEQ ID NO: 14
168 <211> LENGTH: 239
169 <212> TYPE: PRT
170 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Description of Artificial Sequence: Engineered green
173     fluorescent protein
174 <400> SEQUENCE: 14
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177     Val Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly
178         20             25             30
179     Glu Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile
180         35             40             45
181     Cys Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr
182         50             55             60
183     Phe Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys
184         65             70             75             80
185     Gln His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu
186         85             90             95
187     Arg Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu
188         100            105            110
189     Val Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly
190         115            120            125
191     Ile Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr
192         130            135            140
193     Asn Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn
194         145            150            155            160
195     Gly Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser
196         165            170            175
197     Val Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly
198         180            185            190
199     Pro Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu
200         195            200            205
201     Ser Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe
202         210            215            220
203     Val Thr Ala Ala Gly Ile Thr Leu Gly Met Asp Glu Leu Tyr Lys
204         225            230            235

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206 <210> SEQ ID NO: 15
207 <211> LENGTH: 238
208 <212> TYPE: PRT
209 <213> ORGANISM: Aequorea victoria
210 <220> FEATURE:
211 <223> OTHER INFORMATION: Blue Fluorescent Protein
212 <400> SEQUENCE: 15
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215 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
216 20 25 30
217 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
218 35 40 45
219 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
220 50 55 60
221 Ser His Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
222 65 70 75 80
223 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
224 85 90 95
225 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
226 100 105 110
227 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
228 115 120 125
229 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
230 130 135 140
231 Phe Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
232 145 150 155 160
233 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
234 165 170 175
235 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
236 180 185 190
237 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
238 195 200 205
239 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
240 210 215 220
241 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
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VERIFICATION SUMMARY

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